

SUBSTRATE OPTICAL WAVEGUIDES HAVING FIBER-LIKE SHAPE AND METHODS OF MAKING THE SAME

ABSTRACT OF THE DISCLOSURE

Substrate optical waveguides having curved major surfaces and methods for making the same are disclosed. In one exemplary embodiment, a photosensitive cladding layer is pattern exposed to actinic radiation through a first gray-scale mask and subsequently developed to define a groove therein having a curved major bottom surface. A layer of photosensitive core material is thereafter formed over the groove, pattern exposed to actinic radiation through a second gray-scale mask, and subsequently developed to define a core element. The core element is disposed within the groove and has a curved major bottom surface and a curved major top surface.